

# Petroleum Research

U N I V E R S I T Y   O F   U T A H

## CENTER

The Petroleum Research Center (PERC) at the University of Utah conducts research and development studies leading to practical, cost-effective solutions to petroleum production, handling and transportation, especially for waxy and asphaltenic crude oils. In the current year, the development of a three-dimensional, three-phase fractured reservoir simulator with commercial potential was completed. This is the Center's final year in the program.

## TECHNOLOGY

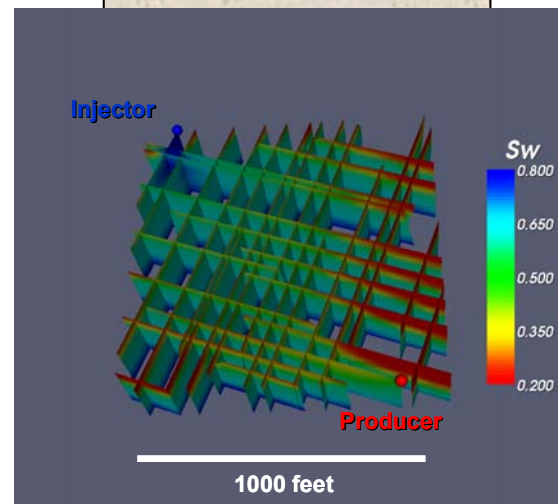
- PERC has developed a new Near-IR/Chemometrics method for crude oil properties prediction; good correlations were demonstrated for several properties. Commercial progress is underway to make suitable online instruments for field implementation.
- A series of comparison tests between oils and oil simulants were developed and catalogued which demonstrated the effectiveness of simulants as crude oil substitutes. The results were widely disseminated and results and samples were shipped to the U.S. EPA laboratories. Patent applications for the two simulant formulations were filed.
- A three-dimensional, three-phase reservoir simulator that models fractured reservoirs was completed.

## ACCOMPLISHMENTS

Two patents for this Center were filed as well as an additional significant copyrighted work. The primary license agreements of this Center are with LT Industries, Inc., Gaithersberg, MD, Exxon Mobil, Fairfax, VA, Golder, Inc., Redmond, Washington.

## THINK TANK

What if ...



**Seamless integration of the simulation tool with a commercial fracture generation software system.**

**(Reservoir simulation results for a basement reservoir generated using the grid created by the fracture generation software, FRED from Golder. )**

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